The Economic Well-being of the Aged Population in the Early 1990s, 2025, and 2060: An Analysis of Social Security Benefits and Retirement Income

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ABSTRACT

This analysis uses actual and projected data to analyze the characteristics and economic well-being of the aged 65 and older population in the early 1990s, 2025, and 2060. Because the Social Security OASDI Trust Fund is projected to become exhausted in 2041, we present the 2060 results under two alternative Social Security benefit structures – current law scheduled and payable benefits. We find that per capita family income of typical older Americans is projected to increase by more than one-and-a-half times between the early 1990s and 2060, even if Social Security solvency is achieved through slowing the growth of benefits. Despite this improvement in incomes over time, we find that the share of retirees in need actually increases slightly and is much higher than the poverty rates would suggest. Holding Social Security benefits at the level payable under current law only slightly reduces median family incomes and somewhat increases the share of older Americans in need in 2060; however, it reduces median income replacement rates from 84 percent assuming current law scheduled benefits to only 72 percent assuming current law payable benefits. The negative impact on retirement security is greatest for those with a greater reliance on Social Security benefits, including women, nonmarried adults, non-Hispanic blacks and Hispanics, high school dropouts, those with weak labor force attachments, and those with the lowest lifetime earnings and incomes.

EXECUTIVE SUMMARY

This analysis uses actual and projected data to analyze the characteristics and economic well-being of the aged 65 and older population in the early 1990s, 2025, and 2060. Because the Social Security OASDI Trust Fund is projected to become exhausted in 2041, we present the 2060 results under two alternative Social Security benefit structures – current law scheduled and payable benefits. We also use several measures to highlight differences in the retirement security of older adults in the early 1990s, 2025 (the year most baby boomers will have retired), and 2060 (19 years after the Social Security Trust Fund is expected to become exhausted). First, we examine per capita family incomes and Social Security benefits. Next, we use two different thresholds to consider how many adults ages 65 and older are able to meet their basic consumption needs. Finally, we examine income replacement rates to determine how well retirement incomes maintain individuals' pre-retirement living standards. The results provide guidance with respect to how older Americans may be impacted by Social Security reform proposals, emphasizing the projected outcomes of the most economically vulnerable subgroups.

We find that per capita family income of typical older Americans is projected to increase by more than one-and-a-half times between the early 1990s and 2060, even if Social Security solvency is achieved through slowing the growth of benefits. So it is not surprising to find a dramatic decline in poverty rates during the same time period. However, this decline largely reflects the assumption of positive wage growth. Indeed, when the criterion is a relative measure based on 50 percent of median poverty-adjusted income, we find that the share of retirees in need actually increases slightly over time and is much higher than the poverty rates would suggest. Clearly, most of the income gains between the early 1990s and 2060 are projected for those with the highest incomes.

Holding Social Security benefits at the level payable under current law only slightly reduces median family incomes and somewhat increases the share of older Americans in need in 2060; however, it has a much larger impact on replacement rates. Median income replacement rates are projected to decrease from 84 percent assuming current law scheduled benefits to only 72 percent assuming current law payable benefits. The financial planning industry often recommends striving for a 70 to 80 percent replacement rate in order to maintain pre-retirement living standards; however, the fraction of older Americans whose family incomes will replace less than 75 percent of shared lifetime earnings is expected to increase from 43 to 53 percent between the current law scheduled and payable scenarios.

Although all individuals in 2060 are subject to the same proportional benefit cut under the current law payable scenario, the negative impact on retirement security is greatest for those with a greater reliance on Social Security benefits. Those most dependent on Social Security benefits include women, nonmarried adults, non-Hispanic blacks and Hispanics, high school dropouts, those with weak labor force attachments, and those with the lowest lifetime earnings and incomes.

I. INTRODUCTION

It is well established that the composition of the aged population is expected to be dramatically different in the near future due to changes in marriage, earnings and work, fertility, and life expectancy patterns (see Butrica, Iams, and Smith 2003 for a review of the literature). And although their poverty rates have improved in recent times, subgroups of the elderly population are still economically vulnerable (U.S. Census Bureau 2003). Taking into account the structural changes expected to impact the aged population, this analysis compares and contrasts their economic well-being in the early 1990s, 2025, and 2060.

One issue complicating this analysis is that the Social Security system is out of long-term actuarial balance. The Social Security Board of Trustees projects that the Social Security OASDI Trust Fund will be exhausted by 2041, and that benefits would have to decline to 74 percent of scheduled benefits at that time to meet the expected level of payroll taxes (U.S. Board of Trustees 2005). Others who have statistically modeled the finances of the Social Security program in the 21st Century also project the system to become insolvent, although the year of insolvency varies with the analysis (Congressional Budget Office 2004; Lee, Anderson and Tuljapukar 2003).

A major reason for the long-term financing issues facing the Social Security system is the aging of the population resulting from the pattern of birth and death rates in the 20th Century (U.S. Board of Trustees 2005; Congressional Budget Office 2004). The fertility rate increased from 2.2 to 3.6 between 1940 and 1960 (the baby boom generation) and then decreased until stabilizing at about 2.0 in the late 1990s (U.S. Board of Trustees 2005). In addition, the life expectancy at age 65 increased dramatically in the last half of the 20th Century, rising from 12.8 to 16.1 years for men and from 15.1 to 19.1 years for women between 1950 and 2001 (U.S.

Board of Trustees 2005). As a result of these patterns, older Americans are becoming an increasingly larger share of the overall population (CSIS Commission on Global Aging 2002). In fact, the aged dependency ratio increased fairly steadily from .138 to .208 between 1950 and 2000, and is projected to increase to over .400 in 2060 (U.S. Board of Trustees 2005).[1]

We use actual and projected data to analyze the characteristics and economic well-being of the aged 65 and older population in the early 1990s, 2025 (the year most baby boomers will have retired), and 2060 (19 years after the Social Security Trust Fund is expected to become exhausted). Because current law Social Security benefits are unsustainable in the future, this analysis projects an alternative 2060 baseline that adjusts Social Security benefits downward to reflect the amounts that are supportable by projected current law taxes. We present the 2060 results under two alternative Social Security benefit structures – current law scheduled and payable benefits. It is important to note that this analysis is a first look at what the future may hold for the aged population in 2060. That is to say, these projections are still undergoing review and validation. In contrast, we feel fairly confident about the 2025 projections since similar analyses have used MINT to consider the retirement prospects of older Americans around this time period. However, by design, all projections are sensitive to their underlying assumptions and represent potential, not actual, outcomes.

As policymakers consider potential changes to the Social Security program, it is important to understand how older Americans may be impacted. Projections, such as those in MINT, can provide some guidance. In this analysis we use several measures to assess their well-being. First, we examine per capita family incomes and Social Security benefits. Next, we use two different thresholds to consider how many adults ages 65 and older are able to meet their

[1] The aged dependency ratio is computed as the population aged 65 and over divided by the population aged 20 to 64.

basic consumption needs. Finally, we examine income replacement rates to determine how well retirement incomes maintain individuals' pre-retirement living standards. We discuss how each of these measures varies by key individual and household characteristics, as well as over time.

II. METHODOLOGY

This analysis is based on actual reports and projections of the major sources of retirement income. We assess the characteristics and economic well-being of the aged population in the early 1990s using data from the 1990 to 1993 panels of the U.S. Census Bureau's Survey of Income and Program Participation (SIPP). Using the SIPP, we construct a measure of total family income that includes Social Security benefits, defined benefit pensions, income from financial assets[2], earnings, Supplemental Security Income (SSI), imputed rent[3], and income from nonspouse co-resident family members.

We then analyze the characteristics and retirement prospects of the aged population in 2025 and 2060 using projections from the Social Security Administration's Model of Income in the Near Term (MINT). MINT starts with data from the 1990 to 1993 and 1996 panels of the SIPP matched to the Social Security Administration's administrative records on earnings, benefits, and mortality. MINT then projects demographic processes such as marital changes, mortality, entry to and exit from the Social Security Disability Insurance (DI) program rolls, age of first receipt of Social Security retirement benefits, living arrangements, and immigration. It

[2] To estimate income from financial assets, we align financial wealth reported in SIPP with wealth in the Survey of Consumer Finances (SCF) and then annuitize 80 percent of this amount. This generates an income estimate that is methodologically comparable to the MINT projection data in 2025 and 2060.

[3] This is computed as 3 percent of the reported housing equity.

also projects expected income from Social Security benefits, defined benefit pensions, asset income[4], earnings, SSI, imputed rent[5], and income from nonspouse co-resident family members.

The projections in this analysis are based on MINTEX, which extends the original MINT data file to capture additional birth cohorts and their retirement prospects. MINT was initially designed to project the distribution of retirement income in 2020 and therefore included only individuals born between 1926 and 1972.[6] However, to model full implementation of alternative Social Security benefit structures it was necessary to add more birth cohorts to MINT and to extend its projection period. For this reason, MINTEX includes cohorts born between 1926 and 2017 and projects retirement income out to 2099. Throughout the text, we refer to MINT when describing projections from the MINTEX data file. (More information on MINT can be found in the technical appendix).

Because the Social Security system is out of long-term actuarial balance, current law Social Security benefits are unsustainable in the future. Therefore, we present the 2060 results under two alternative Social Security benefit structures – current law scheduled and payable benefits. We model current law payable benefits as 70.8 percent of scheduled benefits – the benefit reduction that the Social Security Administration's Office of the Chief Actuary (OCACT) estimates will restore solvency in 2060 (The Board of Trustees 2004). Because it does not

[4] Asset income reflects what economic resources from nonpension, nonhousing assets (including retirement accounts such as defined contribution pensions, Individual Retirement Accounts (IRAs), and Keoghs) could be available as a source of income rather than predicting who actually draws on these resources in the future. In each year from retirement until death, MINT takes the stock of wealth in nonpension, nonhousing assets and: (1) depreciates it based on age-wealth patterns in the SIPP to represent the spend-down of assets in retirement; and (2) converts it into income by calculating the annuity a couple or individual could buy if they annuitized 80 percent of their total wealth. Thus, asset income is derived from a series of annuity estimates based on a declining stock of wealth in retirement.

[5] MINT estimates imputed rent as 3 percent of projected housing wealth.

[6] The youngest and oldest cohorts are included only to provide information for spouses of the core 1931 to 1960 MINT cohorts.

incorporate socio-economic responses possible with these benefit reductions, the solvent baseline we present should be considered illustrative.

III. RESULTS

In this section we present our results. We begin by describing the characteristics of adults ages 65 and older in the early 1990s, 2025, and 2060. We then examine their per capita family incomes and Social Security benefits, which are expressed in 2004 dollars. Next, we use two different thresholds to consider how many adults ages 65 and older are able to meet their basic consumption needs. Finally, we analyze the level and distribution of income replacement rates to determine how well retirement incomes maintain individuals' pre-retirement living standards. We discuss how each of these measures varies by key individual and household characteristics, as well as over time.

Characteristics of Current and Future Retirees

MINT projects that between the early 1990s and 2060 the composition of the population ages 65 and older will change to include an increased share of the oldest age groups, never married and divorced adults, minorities, college graduates, and Social Security beneficiaries (see table 1). And although labor force experience is projected to remain fairly constant between 2025 and 2060, lifetime earnings are expected to increase significantly.[7]

Specifically, representation of adults ages 90 and older is projected to increase by nearly 8 times (from about 2 percent of the aged population in the early 1990s to 15 percent in 2060). At the same time, the share of never married adults is expected to double from 5 to 10 percent and the share of divorced adults is projected to more than double from 7 to 16 percent. Also, the

proportion of non-Hispanic whites is projected to decrease from about 86 to 64 percent, mainly due to an increase in Hispanics.[8] MINT also projects that the percentage of high school dropouts will decrease by about four-fifths (from 43 to 9 percent), while the percentage of college graduates will almost triple (from 12 to 35 percent). Finally, MINT projects that labor force experience will remain fairly constant between 2025 and 2060 – just over 40 years at the median. However, lifetime earnings are projected to increase. Different from Social Security's AIME, our measure of own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. This measure, unlike the AIME, includes Social Security uncovered earnings and earnings above the Social Security taxable maximum. It also includes zeros for Social Security DI beneficiaries. We also create a measure of shared lifetime earnings, the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings is half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when nonmarried. Own and shared lifetime earnings for the typical adult are projected to increase between one-and-a-third and one-and-a-half times between 2025 and 2060.

Total Family Incomes of Older Adults

Our measure of per capita family income includes Social Security benefits, defined benefit pensions, asset income, earnings, SSI, imputed rent, and income from nonspouse coresident family members.[9] According to MINT projections, per capita family income for

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[7] Labor force experience, which is based on positive earnings, and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951. Consequently, lifetime estimates based on these data would be biased downward.

[8] The rise in the Hispanic population may be somewhat overstated since the current methodology for generating additional birth cohorts does not fully account for future immigration (see the technical appendix for a more detailed discussion).

[9] Imputed rental income is 3.0 percent of the difference between the house value and the remaining mortgage principal. There is debate over whether to include housing in income measures and replacement rates. Proponents argue that homeowners with identical financial resources as renters are better off because they don't have to pay additional income for housing. Critics argue that only actual income flows should be included. Although we include

typical adults ages 65 and older will rise substantially from about $25,000 in the early 1990s to $35,000 in 2025 to $46,000 in 2060 assuming current law scheduled Social Security benefits (see table 2). Over time, the largest increases (up to 2.4 times) in median per capita family income are projected for adults ages 70 to 89 years old, widowed and divorced men and women, Hispanics, college graduates, Social Security beneficiaries, and those with the highest family incomes. While never married adults, high school dropouts and graduates, and those with the lowest family incomes are also expected to enjoy increases in family income over time, they will likely have substantially smaller gains (as little as 1.3 times).[10] Even when we consider benefits afforded through the payroll taxes (current law payable) rather than scheduled benefits, median per capita family income is projected to be about $41,000 – which is still one-and-a-half times more than the income in the early 1990s and slightly more than the income in 2025. Still, some subgroups will have lower or no higher incomes in 2060 under current law payable than in 2025. These subgroups include never married men and women and adults with less than 30 years of work experience.

These results suggest that although per capita family income is projected to increase between the early 1990s and 2060 for typical older adults, not all subgroups will benefit equally. The relative standing of population subgroups can be assessed by considering the subgroup's median income as a percentage of the overall population's median income (see table 3). A lower (higher) percentage in 2060 than in the early 1990s indicates that a subgroup is relatively worse

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imputed rent in the income measure we use to describe the overall levels of family income, we do not include imputed rent in the income measure we use to determine replacement rates and poverty rates.

[10] Note that median per capita income for Social Security nonbeneficiaries substantially exceeds that for beneficiaries in the early 1990s (compare $30,000 with $24,000). A plausible explanation for this result is that the nonbeneficiaries in this time period are more likely to include those who have spent their working lives in noncovered employment. In contrast, the nonbeneficiaries in 2025 and 2060 are more likely to include immigrants with limited lifetime earnings. As a result, median per capita income for Social Security nonbeneficiaries is projected to be substantially lower than that for beneficiaries in 2025 and 2060.

(better) off since its income decreased (increased) relative to the income of the overall population in the time period. For example, the relative incomes of adults ages 65 to 69 and those ages 90 and older, never married adults, high school dropouts and graduates, Social Security nonbeneficiaries, and those with the lowest family incomes are expected to decrease noticeably over time. So even though these subgroups will have higher incomes in 2060 than in the early 1990s, they are relatively worse off because their income gains will be much smaller than those of the overall population. In contrast, widowed and divorced adults, non-Hispanic whites and Hispanics, and those with the highest family incomes are expected to be relatively better off in 2060 than in the early 1990s.

Even though the current law payable scenario reduces all scheduled benefits in a given year by the same share, the relative standing of a number of subgroups is expected to decline if they receive current law payable benefits instead of current law scheduled benefits. For example, the ratio of subgroup to overall median per capita family income is projected to decline for divorced adults from 100 percent under current law scheduled to 95 percent under current law payable. Other vulnerable subgroups include adults ages 70 and older, widows and widowers, non-Hispanic blacks and Hispanics, high school dropouts and graduates, adults with less than 30 years of work experience, and those with low earnings and family incomes. As we discuss in the next paragraph, the impact is greatest for those who are most dependent on Social Security benefits.

Social Security benefits provide a major source of income to adults ages 65 and older. Per capita benefits for the typical older adult are projected to increase markedly from about $8,000 in the early 1990s to $13,000 in 2025 and to $19,000 in 2060 assuming current law scheduled benefits (see table 4). The median Social Security dependency ratio, computed as the

portion of family income from Social Security benefits, is also projected to increase in successive time period from 30 percent in the early 1990s to 35 percent in 2025 and to 38 percent in 2060 assuming current law scheduled benefits.[11]

As might be expected, the share of income from Social Security benefits is much higher among disadvantaged groups, including: widowed and divorced adults, non-Hispanic blacks and Hispanics, high school dropouts, and those with the lowest earnings and family incomes. For example, the typical high school dropout in the early 1990s counts on Social Security benefits for 39 percent of his income, while the typical college graduate depends on Social Security benefits for only about 18 percent of his income. Similarly, older adults with the lowest family income rely on Social Security for just over two-thirds of their income compared with about one-tenth for those with the highest family income.

Predictably, the median Social Security dependence ratio is projected to be only 30 percent in 2060 under the current law payable scenario. Although the dependence ratio declines for all subgroups, the impact (measured by the percentage point decrease) is greatest for those who are most dependent on Social Security benefits.

Share of Older Americans in Need

Next we consider how many adults ages 65 and older are able to meet their basic consumption needs and how this has changed over time using two different basic needs thresholds (see table 5). The first threshold is the official federal poverty level of the United States, which establishes an absolute lower bound for consumption needs. The U.S. Census Bureau sets the official poverty thresholds, which vary by family size and age and change each

[11] MINT does not capture the Social Security benefits of family members other than a spouse, if married. As a result, the Social Security dependence ratio could be understated for those living in extended families.

year with the change in the price level, as measured by the Consumer Price Index (CPI).[12] The second threshold is defined as 50 percent of median poverty-adjusted income (i.e. the ratio of family income to the poverty threshold), a common measure in international comparisons because it assesses well-being relative to the overall aged population.[13] Following the convention of the U.S. Census Bureau, we exclude imputed rent from per capita family income to estimate the share of older adults unable to meet their basic consumption needs.

MINT projects that the share of older Americans in poverty will decrease from 7 percent in the early 1990s to 4 percent in 2025 to 2 percent in 2060 assuming current law scheduled Social Security benefits. This decline largely reflects the assumption of positive real-wage growth.[14] As a result, the aged population will grow out of poverty over time because lifetime earnings, and consequently their Social Security benefits and pensions, are expected to increase more rapidly than the poverty thresholds (which are indexed to price growth). Even with Social Security benefit reductions under a current law payable scenario, only 4 percent of adults ages 65 and older are projected to be poor in 2060.

The share in need is much higher in each year and does not decline over time, however, when the basic needs threshold is defined relative to the overall aged population. Although only

[12] The poverty thresholds used in this analysis come from the U.S. Census Bureau. These thresholds vary with family size and age and increase annually with increases in prices as measured by the CPI. For our analyses we use the 65-and-over poverty threshold. When calculating poverty rates, the Census income measure includes only money income. In contrast, using MINT we calculate a measure of income that also includes imputed annuitized income from financial assets. As a result, our projected poverty rates are expected to be somewhat lower than those projected using the Census definition. MINT imputes income from financial assets by determining the real (price-indexed) annuity a family could buy if an annuity was purchased with 80 percent of its financial assets. (Financial assets for this purpose include non-pension financial assets, as well as IRA, Keogh, and 401(k) balances.) The annuity calculation is simply a method of transforming these assets into income to measure well-being. This calculation allows us to acknowledge that families with more financial assets are better off than families with fewer assets, and that families with longer life expectancies must make these assets last longer than families with shorter life expectancies. As a result, the MINT income measure allows us to better assess the resources available to meet consumption needs in retirement.

[13] We compute median poverty-adjusted income for our sample, which is the aged 65 and older population.

7 percent of the aged population in the early 1990s is officially considered poor, 20 percent has income less than 50 percent of median poverty-adjusted income. That is, nearly three times as many adults ages 65 and older are considered in need when the criterion is a relative measure based on 50 percent of median poverty-adjusted income. Under this definition, the overall share in need is projected to rise very slightly over time – to 21 percent in 2025, 22 percent in 2060 under current law scheduled, and 24 percent in 2060 under current law payable. Even subgroups that typically have low poverty rates (e.g. married adults, non-Hispanic whites, college graduates, and those with strong labor force attachments) are likely to approach or have double-digit rates of those with incomes below 50 percent of median poverty-adjusted income. This is because the 2004 poverty threshold for adults ages 65 and older is $9,060 for one-person households and $11,418 for two-person households. However, 50 percent of median poverty-adjusted income is about $14,300 in the early 1990s, $20,900 in 2025, $27,300 in 2060 under current law scheduled, and $23,800 in 2060 under current law payable.

Regardless of which threshold is used, certain older Americans are unlikely to be able to meet their basic consumption needs. The most economically vulnerable groups include adults ages 90 and older, women, nonmarried adults, minorities, high school dropouts, Social Security nonbeneficiaries, those with weak labor force attachments, and not surprisingly, those with the lowest lifetime earnings and family incomes.

Retirement Income Replacement Rates

Income replacement rates provide information regarding well-being during retirement years relative to well-being during pre-retirement years, and are often used to describe the resources available to maintain one's standard of living in retirement. We compute the

[14] The Social Security Board of Trustees projects that wages will quadruple between 2025 and 2060, while prices will only triple (2004, Table V.B1 and Table V.C1).

replacement rate for each person as the ratio of per capita family income in a given year to the person's average shared earnings between ages 22 and 62.[15] We exclude imputed rent and co-resident income from per capita family income since these income flows, unlike Social Security and pensions (for example), are not derived from pre-retirement earnings.

The median income replacement rate is expected to be 87 percent in 2025 (see table 6). In other words, per capita family income in 2025 will replace 87 percent of average shared lifetime earnings. Often, economically disadvantaged individuals have high replacement rates because they have relatively low earnings, but relatively high Social Security benefits (because of the progressivity of the Social Security system) and SSI benefits (because SSI is a means-tested entitlement program). Indeed, we find that replacement rates are highest for a number of economically vulnerable groups, including widowed adults, Social Security nonbeneficiaries, adults with weak labor force attachments, and those with the lowest lifetime earnings. However, because replacement rates depend on retirement income in relation to lifetime earnings, they can also be high for relatively well-off groups such as college-educated adults and those with the highest family incomes.

Under current law scheduled benefits, the overall income replacement rate is projected to decline slightly to 84 percent in 2060. Replacement rates decline between the two periods

[15] An important issue when calculating replacement rates is how to define the pre-retirement earnings used in the denominator. These earnings are often defined as earnings in the year prior to retirement or average earnings in the last five years before retirement. However, because many individuals experience time out of the workforce and declining earnings later in their careers, Smith (2002) argues that it is more appropriate to define earnings based on the actual patterns of work across a lifetime. Furthermore, individuals, in effect, must pay for their retirement with wages earned over their lifetimes and not just in the peak of their careers. Therefore, we define pre-retirement earnings as shared earnings between ages 22 and 62. Shared earnings is half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when nonmarried, where earnings include Social Security uncovered earnings, covered earnings, and covered job earnings above the Social Security taxable maximum. For replacement rates, we compute the average of wage-indexed shared earnings between ages 22 and 62. That is, we average shared earnings over 41 years for all individuals. Consequently, we may slightly overstate replacement rates for Social Security disability insurance (DI) beneficiaries since they receive Social Security benefits in years when they have no earnings.

because retirement incomes do not increase as much as shared lifetime earnings. This suggests that older adults will be better off in 2025 than in 2060, relative to their pre-retirement living standards. Despite the differences in replacement rates between the two periods, the relative differences within and across subgroups seem similar.

Although holding Social Security benefits at the level payable under current law only slightly reduces median family incomes and somewhat increases the share of older Americans in need in 2060, it has a much larger impact on income replacement rates. The overall median replacement rate in 2060 is projected to decline to only 72 percent under the current law payable scenario. Even though all individuals in 2060 are subject to the same proportional benefit cut under the current law payable scenario, the decline in replacement rates is largest for those with a greater reliance on Social Security benefits. Those most dependent on Social Security benefits include women, nonmarried adults, non-Hispanic blacks and Hispanics, high school dropouts, those with weak labor force attachments, and those with the lowest lifetime earnings and incomes.

While the appropriate level depends upon expected needs, the financial planning industry often recommends a 70 to 80 percent replacement rate in order to maintain pre-retirement living standards (TIAA-CREF 2002, Chapter 2; TIAA-CREF 1994, p. 12; Hinden 2001, p. H1). MINT projects that the fraction of older Americans whose family incomes will replace less than 75 percent of shared lifetime earnings is expected to be similar in 2025 (40 percent) and 2060 (43 percent) assuming current law scheduled benefits (see table 7). Divorced women, non-Hispanic blacks, high school graduates, those with 30 or more years of labor force experience, and adults with low family incomes are even more likely than others to have replacement rates that fall below the recommended level.

Since MINT projects that Social Security insolvency will lower current law income replacement rates in 2060, it is not surprising to find that the fraction of older Americans whose family incomes will replace less than 75 percent of shared lifetime earnings is expected to increase by 10 percentage points – from 43 percent assuming current law scheduled benefits to 53 percent assuming current law payable benefits. Even more remarkable is that the proportion of elderly with replacement rates of less than 50 percent is projected to increase from 18 to 29 percent between the current law scheduled and payable scenarios.

IV. CONCLUSIONS

This analysis examines the characteristics and economic well-being of the aged 65 and older population in the early 1990s, 2025, and 2060. Because current law Social Security benefits are unsustainable in the future, we present 2060 results for both current law scheduled and payable benefits, where current law payable benefits reflect the amounts that are supportable by current law taxes. As already noted, this analysis is a first look at what the future may hold for the aged population in 2060 since these projections are still being reviewed and validated. Regardless, the results should provide guidance with respect to how older Americans may be impacted by Social Security reform proposals.

We find that per capita family income of typical older Americans is projected to increase by more than one-and-a-half times between the early 1990s and 2060, even if Social Security solvency is achieved through slowing the growth of benefits. So it is not surprising to find a dramatic decline in poverty rates during the same time period. However, this decline largely reflects the assumption of positive wage growth. Indeed, when the criterion is a relative measure based on 50 percent of median poverty-adjusted income, we find that the share of retirees in need

actually increases slightly over time and is much higher than the poverty rates would suggest. Clearly, most of the income gains between the early 1990s and 2060 are projected for those with the highest incomes.

Holding Social Security benefits at the level payable under current law only slightly reduces median family incomes and somewhat increases the share of older Americans in need in 2060; however, it has a much larger impact on replacement rates. Median income replacement rates are projected to decrease from 84 percent assuming current law scheduled benefits to only 72 percent assuming current law payable benefits. The financial planning industry often recommends striving for a 70 to 80 percent replacement rate in order to maintain pre-retirement living standards; however, the fraction of older Americans whose family incomes will replace less than 75 percent of shared lifetime earnings is expected to increase from 43 to 53 percent between the current law scheduled and payable scenarios.

Although all individuals in 2060 are subject to the same proportional benefit cut under the current law payable scenario, the negative impact on retirement security is greatest for those with a greater reliance on Social Security benefits. Those most dependent on Social Security benefits include women, nonmarried adults, non-Hispanic blacks and Hispanics, high school dropouts, those with weak labor force attachments, and those with the lowest lifetime earnings and incomes.

Finally, some limitations of MINT may affect the results. First, while MINT models behavioral responses to Social Security policy changes for its original cohorts, it may fail to fully capture changes in retirement behavior among the additional cohorts. However, the extent to which the retirement behavior of these cohorts is misrepresented is not clear because only large changes in Social Security wealth have an impact on retirement behavior in the MINT retirement

model (see the technical appendix for a more detailed discussion).[16] Second, the current methodology for generating additional birth cohorts understates the size of the future retiree population because it does not fully account for future immigration (see the technical appendix for a more detailed discussion). Because immigrants tend to have less labor force experience than native-born Americans, they are more likely have low earnings, to be ineligible for Social Security benefits, and to have high poverty rates. Consequently, the projections in this analysis may to some extent overstate income and understate poverty among future retirees.

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[16] This is because family wealth (including defined benefit and defined contribution pension wealth from current and past jobs, Social Security wealth, and other financial wealth, like stocks, bonds, and checking accounts) has a small positive effect on the decision to retire, while individual retirement incentives (measured by the maximum increase in pension wealth associated with continued work, in excess of the value implied by the current wealth accrual) have a small negative effect on the decision to retire. To some extent, these effects cancel each other out resulting in little or no behavioral response to changes in Social Security benefits.

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TECHNICAL APPENDIX

MINT projects the wealth and income of individuals born between 1926 and 1972 from the early 1990s until 2039. It was developed by SSA's Office of Research, Evaluation, and Statistics, with substantial assistance from the Brookings Institution, the RAND Corporation, and the Urban Institute. (For more information see Smith, et al. 2004, Toder at al. 2002, Butrica, Iams, Moore and Waid 2001; Panis and Lillard 1999; and Toder et al. 1999). For persons born between 1926 and 1972, MINT independently projects each person's marital changes, mortality, entry to and exit from Social Security disability insurance (DI) rolls, and age of first receipt of Social Security retirement benefits. It also projects lifetime earnings, Social Security benefits, and other sources of income after age 49 through the year 2039. These other income sources include income from private pension plans, nonpension assets, SSI, and income of nonspouse co-residents. It also calculates a rate of return on owner-occupied housing to reflect that homeowners are better off than nonhomeowners. The base data for these projections are the 1990-93 and 1996 panels of the SIPP, exactly matched to SSA administrative records on earnings, benefits, and mortality through 2000.

MINT projects future marital histories and estimates characteristics of future and former spouses. It estimates marital transitions from the reported marital status in the SIPP panels, using gender-specific continuous time hazard models for marriage and divorce. Explanatory variables that predict marital transitions in the equations are age, education, years unmarried, whether widowed, and calendar year after 1980. The last variable captures the stabilization of divorce rates at a relatively high level in the early 1980's (Goldstein 1999). MINT also identifies characteristics of spouses, in particular their lifetime earnings histories. Individuals who were married in the 1990-93 and 1996 SIPP panels and remain married throughout the projection period are exactly matched with their spouses from the survey. Former and future spouses are statistically assigned from a MINT observation with similar characteristics, or a "nearest neighbor." Thus, MINT contains observed and estimated marital histories with the linkages to the characteristics of current, former, and future spouses that are necessary for calculation of spousal and survivors benefits.

MINT imputes earnings histories and disability onset through age 67 using a "nearest neighbor" matching procedure. MINT starts with a person's own SSA recorded earnings from 1951 through 2000. The nearest neighbor procedure statistically assigns to each "recipient" worker the next five years of earnings and Social Security DI entitlement status, based on the earnings and DI status of a "donor" MINT observation born five years earlier with similar characteristics. The splicing of five-year blocks of earnings from donors to recipients continues until earnings projections reach age 67. A number of criteria are used to match recipients with donors in the same age interval. These criteria include gender, minority group status, education level, DI entitlement status, average earnings over the five-year period, presence of earnings in the 4^{th} and 5^{th} years of the five-year period, and age-gender group quintile of average prematch period earnings. An advantage of this approach is that it preserves the observed heterogeneity in age-earnings profiles for earlier birth cohorts in projecting earnings of later cohorts.

In a subsequent process for never disabled persons, MINT projects earnings, retirement, and benefit take-up from age 50 until death. These earnings replace the earnings generated from the splicing method after age 50. This post-process allows the model to project behavioral changes in earnings, retirement, and benefit take-up in response to policy changes. MINT then calculates Social Security benefits based on earnings histories and past DI entitlement status of workers, marital histories, and earnings histories of current and former spouses.

Separate modules in MINT impute defined benefit (DB) pension coverage and benefits and defined contribution (DC) pension coverage and wealth at retirement. The pension projections start with the self-reported pension coverage information in the SIPP. MINT then uses data from the Policy Simulation Group's PENSIM model to impute future job changes and pension coverage on future jobs. Next MINT projects pension benefits from past, current, and future jobs. DB plan benefits are projected using Pension Benefit Guaranty Corporation's (PBGC) Pension Insurance Modeling System (PIMS) DB plan formulas. Retirement account (i.e. DC, IRA, and Keogh plans) balances are projected using self-reported information on the SIPP regarding account balances and contribution rates, along with assumptions regarding asset allocations and future contribution rates. MINT projects the wealth from these accounts by accumulating the balances to the retirement date, along with any new contributions and interest earnings.

MINT also projects housing equity and nonpension wealth (i.e. vehicle, other real estate, farm and business equity, stock, mutual fund, and bond values, checking, saving, money market, and certificate of deposit account balances, less unsecured debt) from age 50 until death. These projections are based on random-effects models estimated from the Panel Survey of Income Dynamics (PSID), Health and Retirement Study (HRS), and the SIPP. Explanatory variables include age, recent earnings and present value of earnings, number of years with earnings above the Social Security taxable maximum, marital status, gender, number and age of children, education, race, health and disability status, pension coverage, self-employment, and age at death.

In each year from retirement until death, MINT takes the stock of wealth in retirement accounts and nonpension assets and: (1) decays it based on age-wealth patterns in the SIPP to represent the spend-down of assets in retirement; and (2) converts it into income by calculating the annuity a couple or individual could buy if they annuitized 80 percent of their total wealth. Thus, asset income is derived from a series of annuity estimates based on a declining stock of wealth in retirement.

MINT also projects family living arrangements, SSI income, and income of nonspouse co-residents from age 62 until death. Living arrangements depend on the marital status, age, gender, race, ethnicity, nativity, number of children ever born, education, income and assets of the individual, and date of death. For those projected to co-reside, MINT uses a "nearest neighbor" match to assign the income and family characteristics of the other family members from a donor file of co-resident families from the 1990 to 1993 and 1996 SIPP panels. After all incomes and assets are calculated, MINT calculates SSI eligibility and projects participation and benefits for eligible participants.

Finally, MINT projects immigration to represent people who immigrated after the SIPP survey and those who will immigrate in future years. MINT creates new immigrants by statistically assigning SIPP panel immigrants based on a "nearest neighbor" match. Because immigrants have lower average income than native-born Americans, omitting them from the projection period and analyses of well-being would understate true poverty.

MINT is a useful tool for gaining insights of what we expect to happen to the retirement incomes of future retirees. It projects Social Security benefits and other important sources of income in retirement. MINT also accounts for major changes in the growth of economy-wide real earnings, the distribution of earnings both between and within birth cohorts, and the composition of the retiree population.[17] All these factors will affect the retirement income of future retirees.

The projections in this analysis are based on an extension of MINT, termed MINTEX, which includes a number of modifications. First and foremost, MINTEX extends the original MINT data file to capture additional birth cohorts and their retirement prospects. MINT was initially designed to project the distribution of retirement income in 2020 and therefore included only individuals born between 1926 and 1972.[18] However, to model full implementation of alternative Social Security benefit structures it was necessary to add more birth cohorts to MINT and to extend its projection period. For this reason, MINTEX includes cohorts born between 1926 and 2017 and projects retirement income out to 2099.

We generated the 1973-2017 cohorts (target individuals) in two distinct ways: one for individuals born between 1973 and 1983 and another for individuals born between 1984 and 2017. The two methods are designed to maximize the amount of information available for these individuals.

For target individuals born between 1973 and 1983, we extracted individuals from the March 2003 Current Population Survey (CPS) who were born in the same years. For those born between 1984 and 2017, we generated 1,000 individuals whose characteristics are based on Census population projections at age 38 (the average age of the donor population in the 1993 SIPP interview year) by sex, race and ethnicity, and foreign-born status.

We assigned demographic and economic characteristics for target individuals through a statistical match. The MINT 1960-1964 cohorts from the 1996 SIPP panel serve as the donor population for the CPS 1973-1978 target individuals.[19] Once information about the 1973-1978 cohorts is generated, we use these cohorts as the donor population for the CPS 1979-1983 target

[17] MINT uses the Social Security Board of Trustees 2004 intermediate cost assumptions on the economy, of disability prevalence and mortality through age 65 and of the growth of average economy-wide wages and the CPI.

[18] The youngest and oldest cohorts are included only to provide information for spouses of the core 1931 to 1960 MINT cohorts.

[19] We distinguish between SIPP panels since MINT cohorts come from both the 1990-93 and 1996 SIPP panels. We chose not to use cohorts born after 1964 as donors since they were less likely to have been in a career job when interviewed about their pension coverage in the 1996 SIPP. Those born between 1960 and 1964 were asked about their pension coverage when they were between ages 34 and 38

individuals. Finally, we use the 1973-1983 cohorts as the donor population for the 1984-2017 Census projected target individuals (see table A).

Table A. Methodology for Creating Additional Birth Cohorts

Cohorts	Targets	Donors	Matching Variables
1926-1972	MINT	MINT	None – these are the original cohorts
1973-1978	CPS	MINT 1960-1964 cohorts from 1996 SIPP	Age, sex, race/ethnicity, education (less than high school, high school graduate, and college graduate), age-specific earnings, age-specific marital status, and foreign-born status
1979-1983	CPS	1973-1978 cohorts	Age, sex, race/ethnicity, education (less than high school and high school or more), age-specific earnings, age-specific marital status, and foreign-born status
1984-2017	Census Projections	1973-1983 cohorts	Sex, race/ethnicity, and foreign-born status

We adjusted the size of the donor population to reflect the CPS and Census population weights. We then statistically matched target individuals to donor individuals using as many demographic and economic characteristics as available. The statistical match selects the donor individual with the minimum distance based on the following form:

$$D_d = \sum_{j=1}^{n} w_j * [(X_{dj} - X_{rj}) / s_j]^2$$

where D is the distance, j is the number of measured attributes in the distance function, w is a weight factor, X is a characteristic (e.g. age, sex, race and ethnicity, and foreign born status), s is the standard deviation of the j^{th} X variable in the dataset, d denotes the characteristic of the donor (from MINT), and r denotes the characteristic of the recipient (from the CPS or Census). We obtained weights in the distance function by estimating separately for males and females stepwise OLS regressions of average early career earnings (i.e. average earnings between ages 20 and 35) on a set of demographic characteristics. The weight for each factor is equal to the proportion of the variance in early career earnings that it explains (partial R-squared).

We tailored the distance function to use as much information as the target group could support. In all cases, we restricted the match to individuals of the same sex. For individuals born between 1973 and 1978, we used the following variables for the statistical match: age, race and ethnicity, education (less than high school, high school graduate, and college graduate), age-specific earnings, age-specific marital status, and foreign-born status. For individuals born between 1979 and 1983, we relaxed the education criteria to less than high school and high school or more. For individuals born between 1984 and 2017, we used only race and ethnicity

and foreign-born status for the statistical match. We randomly entered the donor pool to allow for random selection among ties in the distance function. Once the donor with the minimum distance was selected, we assigned the donor's projected MINT data to the target individual making sure to preserve the age-specific patterns of the donor.

The advantage of this approach is that the income and demographic projections of younger cohorts reflect recent trends, while matching the target population size. Once we generated the additional cohorts, we adjusted their death dates (and all corresponding variables) to reflect increases in life expectancy projected by OCACT. One problem with the current methodology is that it understates the size of the future retiree population because it does not fully account for future immigration within new birth cohorts. This is a problem for the 1973-2017 birth cohorts. While our methodology accounts for immigrants represented in the CPS survey and the Census population projections, it does not represent people who immigrated after these surveys and those who are projected to arrive in the United States after age 38. Because immigrants tend to have lower incomes than native-born Americans, our methodology may to some extent overstate income and understate poverty by not including them.

Another problem with the current methodology is that, as with other demographic and economic characteristics, we assign the 1973-2017 birth cohorts the retirement behavior of previous cohorts. The MINT retirement model is a function of Social Security wealth, as well as other economic, demographic, and health characteristics. Currently we compute Social Security wealth for the main MINT cohorts (1926-1972) and use the retirement model to determine their retirement behavior. We then assign the 1973-2017 cohorts the retirement behavior of the 1966-1972 cohorts. To the extent that the retirement behavior of the 1966-1972 cohorts is impacted by changes in Social Security benefits, this is reflected in the retirement behavior of the 1973-2017 cohorts. Any changes in Social Security wealth among these later cohorts are not modeled.[20]

An alternative approach would be to compute Social Security wealth for the 1973-2017 cohorts and use the MINT retirement model to determine their retirement age. However, even this approach may produce smaller than expected behavioral effects since only significantly large changes in Social Security wealth have an impact on retirement behavior in the MINT retirement model.[21]

In addition to extending the original MINT data file to capture additional birth cohorts, MINTEX also adjusts the baseline wealth in the MINT data file to more closely match wealth in the Survey of Consumer Finances (SCF). Researchers commonly regard the SCF as one of the best sources of wealth data. Although SIPP and SCF wealth compare very closely up to about

[20] Although we do not recompute Social Security wealth for these cohorts, we do recompute their Social Security benefits.

[21] This is because family wealth (including defined benefit and defined contribution pension wealth from current and past jobs, Social Security wealth, and other financial wealth, like stocks, bonds, and checking accounts) has a small positive effect on the decision to retire, while individual retirement incentives (measured by the maximum increase in pension wealth associated with continued work, in excess of the value implied by the current wealth accrual) have a small negative effect on the decision to retire. To some extent, these effects cancel each other out resulting in little or no behavioral response to changes in Social Security benefits.

the 80th percentile, SIPP wealth systematically falls behind SCF wealth above the 80th percentile (Czajka, Jacobson, and Cody 2003). As a result, mean household retirement account balances and financial wealth on the 1992 SIPP are about 50 percent lower than values on the 1992 SCF.[22] To account for this, MINTEX adjusts SIPP wealth by an increasing percentage along the wealth distribution.

Finally, MINTEX updates the original MINT macroeconomic assumptions. MINTEX uses economic assumptions regarding the growth of average economy-wide wages and the CPI from the intermediate cost scenario in the 2004 OASDI Trustees Report.[23] MINTEX also updates the thresholds for defined contribution pension plans.

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[22] These differences are similar in other SIPP and SCF years.

[23] MINTEX continues to use the original MINT assumptions regarding disability prevalence and mortality through age 65, which are from the intermediate cost scenario in the 2002 OASDI Trustees Report.

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Table 1. Projected Characteristics of Adults Ages 65+, early 1990s, 2025, and 2060

	Early 1990s	2025	2060
Total	100%	100%	100%
Age			
65-69	32	31	24
70-79	47	45	37
80-89	19	19	23
90+	2	5	15
Gender			
Female	59	58	61
Male	41	42	39
Marital Status			
Never married	5	5	10
Married	56	57	49
Widowed	33	21	25
Divorced	7	16	16
Gender and Marital Status			
Female: Never married	3	3	7
Female: Married	24	26	23
Female: Widowed	27	18	21
Female: Divorced	4	11	10
Male: Never married	2	2	4
Male: Married	31	31	25
Male: Widowed	5	3	4
Male: Divorced	2	5	6
Race/Ethnicity			
Non-hispanic white	86	77	64
Non-hispanic black	8	9	11
Hispanic	4	8	17
Asian & Native American	2	6	7
Education			
High school dropout	43	11	9
High school graduate	45	60	56
College graduate	12	29	35
Social Security Benefit Type			
Nonbeneficiary	8	5	3
Beneficiary	92	95	97
MEDIAN VALUES[a]			
Years in the labor force		42	44
Own total lifetime earnings (thousands, $2004)[b]		$31	$46
Shared total lifetime earnings (thousands, $2004)[c]		$38	$53

Notes:

[a]Labor force experience and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951.

[b]Own total lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62.

[c]Shared total lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when nonmarried.

Source: Authors tabulations of MINTEX.

Table 2. Median Per Capita Family Income for Adults Ages 65+, early 1990s, 2025, and 2060 (in thousands, $2004)

	Early 1990s	2025	2060 (CLS)	2060 (CLP)
Total	$25	$35	$46	$41
Age				
65-69	27	36	46	42
70-79	24	36	46	40
80-89	22	33	44	38
90+	29	35	50	44
Gender				
Female	24	34	45	40
Male	26	37	48	43
Marital Status				
Never married	26	33	37	33
Married	25	36	46	41
Widowed	24	36	52	45
Divorced	21	34	46	39
Gender and Marital Status				
Female: Never married	26	33	38	34
Female: Married	25	35	46	41
Female: Widowed	23	35	49	43
Female: Divorced	20	31	42	36
Male: Never married	27	33	32	29
Male: Married	25	36	46	41
Male: Widowed	33	46	70	61
Male: Divorced	24	43	51	46
Race/Ethnicity				
Non-hispanic white	26	39	53	47
Non-hispanic black	16	24	32	26
Hispanic	16	23	35	30
Asian & Native American	26	34	52	47
Education				
High school dropout	18	18	24	19
High school graduate	29	32	39	34
College graduate	43	58	79	72
Social Security Benefit Type				
Nonbeneficiary	30	15	31	34
Beneficiary	24	36	46	41
Labor Force Experience[a]				
Less than 20 years		19	23	19
20 to 29 years		28	30	26
30 or more years		39	50	45
Shared Lifetime Earnings[a,b]				
1st Quintile		15	20	17
2nd Quintile		25	32	27
3rd Quintile		33	44	38
4th Quintile		45	62	55
5th Quintile		78	124	118
Total Income[c]				
1st Quintile	10	12	17	13
2nd Quintile	16	23	30	25
3rd Quintile	25	35	46	41
4th Quintile	38	57	78	71
5th Quintile	71	111	172	164

Notes:

[a]Labor force experience and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951.

[b]Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when nonmarried.

[c]Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.

Table 3. Ratio of Subgroup to Cohort Median Per Capita Family Income for Adults Ages 65+, early 1990s, 2025, and 2060[a]

	Early 1990s	2025	2060 (CLS)	2060 (CLP)
Total	100%	100%	100%	100%
Age				
65-69	108	103	100	102
70-79	96	103	100	98
80-89	88	94	96	93
90+	116	100	109	107
Gender				
Female	96	97	98	98
Male	104	106	104	105
Marital Status				
Never married	104	94	80	80
Married	100	103	100	100
Widowed	96	103	113	110
Divorced	84	97	100	95
Gender and Marital Status				
Female: Never married	104	94	83	83
Female: Married	100	100	100	100
Female: Widowed	92	100	107	105
Female: Divorced	80	89	91	88
Male: Never married	108	94	70	71
Male: Married	100	103	100	100
Male: Widowed	132	131	152	149
Male: Divorced	96	123	111	112
Race/Ethnicity				
Non-hispanic white	104	111	115	115
Non-hispanic black	64	69	70	63
Hispanic	64	66	76	73
Asian & Native American	104	97	113	115
Education				
High school dropout	72	51	52	46
High school graduate	116	91	85	83
College graduate	172	166	172	176
Social Security Benefit Type				
Nonbeneficiary	120	43	67	83
Beneficiary	96	103	100	100
Labor Force Experience[b]				
Less than 20 years		54	50	46
20 to 29 years		80	65	63
30 or more years		111	109	110
Shared Lifetime Earnings[b,c]				
1st Quintile		43	43	41
2nd Quintile		71	70	66
3rd Quintile		94	96	93
4th Quintile		129	135	134
5th Quintile		223	270	288
Total Income[d]				
1st Quintile	40	34	37	32
2nd Quintile	64	66	65	61
3rd Quintile	100	100	100	100
4th Quintile	152	163	170	173
5th Quintile	284	317	374	400

Notes:

[a]Computed as the ratio of median income in a subgroup to median income of the entire cohort.

[b]Labor force experience and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951.

[c]Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when nonmarried.

[d]Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.

Table 4. Median Per Capita Social Security Benefits and Dependency Ratios for Adults Ages 65+, early 1990s, 2020 and 2065 (in thousands, $2004)

	Early 1990s		2025		2060 (CLS)		2060 (CLP)	
	Per Capita Social Security	Dependence on Social Security	Per Capita Social Security	Dependence on Social Security	Per Capita Social Security	Dependence on Social Security	Per Capita Social Security	Dependence on Social Security
Total	$8	30%	$13	35%	$19	38%	$13	30%
Age								
65-69	7	25	13	33	17	35	12	27
70-79	8	33	14	37	19	40	14	33
80-89	8	34	13	36	19	41	13	33
90+	8	24	12	30	18	34	13	27
Gender								
Female	8	32	14	37	19	40	13	32
Male	8	29	13	33	18	36	13	28
Marital Status								
Never married	8	25	12	33	15	38	11	31
Married	8	29	13	34	18	37	13	29
Widowed	9	34	15	38	21	39	15	31
Divorced	7	36	14	40	19	43	14	34
Gender and Marital Status								
Female: Never married	8	26	12	34	15	39	11	31
Female: Married	8	29	13	35	18	38	13	30
Female: Widowed	9	35	14	39	20	41	15	33
Female: Divorced	7	35	13	42	18	44	13	36
Male: Never married	7	24	12	32	14	35	10	28
Male: Married	8	28	13	33	17	36	12	28
Male: Widowed	10	29	15	31	21	31	15	24
Male: Divorced	8	38	16	37	21	40	15	31
Race/Ethnicity								
Non-hispanic white	8	30	14	34	20	36	14	28
Non-hispanic black	6	39	12	46	15	49	11	40
Hispanic	6	32	10	42	16	48	11	39
Asian & Native American	6	16	9	22	18	32	13	25
Education								
High school dropout	7	39	9	45	13	54	9	45
High school graduate	9	28	13	39	17	44	12	36
College graduate	9	18	16	26	23	28	16	22
Social Security Benefit Type								
Nonbeneficiary	0	0	0	0	0	0	0	0
Beneficiary	8	33	14	37	19	40	13	31
Labor Force Experience[a]								
Less than 20 years			6	21	11	34	8	27
20 to 29 years			11	39	13	46	9	37
30 or more year			14	36	19	38	14	30
Shared Lifetime Earnings[a,b]								
1st Quintile			7	37	11	54	8	45
2nd Quintile			11	45	15	49	11	40
3rd Quintile			14	41	19	43	13	35
4th Quintile			16	35	22	36	16	28
5th Quintile			18	23	26	20	19	15
Total Income[c]								
1st Quintile	6	69	8	73	12	75	9	70
2nd Quintile	8	49	13	55	17	58	12	49
3rd Quintile	9	34	14	40	20	42	14	34
4th Quintile	9	22	15	27	22	28	15	21
5th Quintile	9	11	17	14	24	13	17	9

Notes:

[a] Labor force experience and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951.

[b] Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married, and his or her own earnings in years when nonmarried.

[c] Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.

Table 5. Share of Adults Ages 65+ with Incomes Less than the Poverty Threshold and 50% Median Poverty-Adjusted Income, early 1990s, 2020 and 2065[a]

	Early 1990s		2025		2060 (CLS)		2060 (CLP)	
	Poverty Threshold	50% Median Poverty-Adjusted Income	Poverty Threshold	50% Median Poverty-Adjusted Income	Poverty Threshold	50% Median Poverty-Adjusted Income	Poverty Threshold	50% Median Poverty-Adjusted Income
Total	7%	20%	4%	21%	2%	22%	4%	24%
Age								
65-69	5	16	4	19	1	19	3	21
70-79	7	19	4	21	2	21	4	23
80-89	9	27	5	25	1	24	4	27
90+	11	29	4	26	2	26	4	28
Gender								
Female	9	24	5	25	2	25	4	27
Male	4	14	3	16	2	17	3	19
Marital Status								
Never married	15	32	11	37	7	44	14	45
Married	2	9	2	13	0	11	1	13
Widowed	12	33	6	32	1	28	4	31
Divorced	18	40	6	32	2	32	5	35
Gender and Marital Status								
Female: Never married	15	32	12	38	5	42	11	43
Female: Married	2	9	3	13	1	11	1	14
Female: Widowed	13	35	6	33	1	29	4	32
Female: Divorced	20	42	8	36	3	36	5	38
Male: Never married	14	32	11	37	10	48	20	50
Male: Married	2	9	2	12	0	11	1	12
Male: Widowed	6	22	7	25	1	18	2	20
Male: Divorced	15	36	4	24	1	26	4	30
Race/Ethnicity								
Non-hispanic white	5	16	3	17	1	17	2	19
Non-hispanic black	24	47	9	37	4	40	9	42
Hispanic	17	42	9	37	2	30	5	33
Asian & Native American	12	26	14	31	2	22	3	24
Education								
High school dropout	12	32	19	52	5	46	10	49
High school graduate	3	12	3	22	2	26	5	29
College graduate	2	6	1	9	0	9	1	10
Social Security Benefit Type								
Nonbeneficiary	13	25	39	62	26	48	25	43
Beneficiary	6	20	2	19	1	21	3	24
Labor Force Experience[b]								
Less than 20 years			23	53	14	54	20	54
20 to 29 years			7	33	5	42	11	43
30 or more year			1	14	0	17	2	20
Shared Lifetime Earnings[b,c]								
1st Quintile			21	61	8	62	16	62
2nd Quintile			1	29	0	28	2	33
3rd Quintile			0	12	0	14	0	18
4th Quintile			0	4	0	4	0	7
5th Quintile			0	1	0	1	0	1
Total Income[d]								
1st Quintile	32	76	22	82	8	81	18	88
2nd Quintile	2	21	0	23	0	27	0	32
3rd Quintile	0	2	0	1	0	1	0	2
4th Quintile	0	1	0	0	0	0	0	0
5th Quintile	0	0	0	0	0	0	0	0

Notes:

[a] For computing basic needs thresholds, total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, and income from nonspouse coresident family members.

[b] Labor force experience and lifetime earnings cannot be estimated for the aged population in the early 1990s because the SSA administrative data on annual taxable earnings are not available before 1951.

[c] Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married, and his or her own earnings in years when nonmarried.

[d] Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.

Table 6. Median Replacement Rate for Adults Ages 65+, 2025 and 2060[a]

	2025	2060 (CLS)	2060 (CLP)
Total	87%	84%	72%
Age			
65-69	91	89	79
70-79	85	84	71
80-89	83	79	67
90+	97	81	70
Gender			
Female	87	82	71
Male	87	86	74
Marital Status			
Never married	89	87	74
Married	86	82	72
Widowed	98	89	75
Divorced	80	78	65
Gender and Marital Status			
Female: Never married	87	78	66
Female: Married	87	83	72
Female: Widowed	95	86	73
Female: Divorced	76	73	60
Male: Never married	92	106	84
Male: Married	85	81	71
Male: Widowed	116	109	96
Male: Divorced	87	86	71
Race/Ethnicity			
Non-hispanic white	87	86	75
Non-hispanic black	74	76	62
Hispanic	83	78	65
Asian & Native American	130	90	78
Education			
High school dropout	90	84	68
High school graduate	83	80	67
College graduate	97	93	83
Social Security Benefit Type			
Nonbeneficiary	360	158	156
Beneficiary	85	83	71
Labor Force Experience			
Less than 20 years	153	140	125
20 to 29 years	97	102	81
30 or more year	81	80	69
Shared Lifetime Earnings[b]			
1st Quintile	132	112	90
2nd Quintile	80	76	63
3rd Quintile	76	72	62
4th Quintile	79	74	66
5th Quintile	90	94	88
Total Income[c]			
1st Quintile	65	65	49
2nd Quintile	63	61	51
3rd Quintile	78	76	66
4th Quintile	104	98	91
5th Quintile	172	164	155

Notes:

[a]Replacement rates are calculated as the ratio of income at age 67 to shared lifetime earnings. Income includes Social Security benefits, pensions, income from assets, earnings, and SSI benefits.

[b]Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married, and his or her own earnings in years when nonmarried.

[c]Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.

Table 7. Percentage of Adults Ages 65+ with Replacement Rates Less than 25%, 50%, 75%, 100%, 2025 and 2060[a]

	2025				2060 (CLS)				2060 (CLP)			
	< 25%	< 50%	< 75%	< 100%	< 25%	< 50%	< 75%	< 100%	< 25%	< 50%	< 75%	< 100%
Total	1%	16%	40%	58%	2%	18%	43%	61%	4%	29%	53%	67%
Age												
65-69	1	13	37	56	2	16	38	58	3	25	47	62
70-79	1	16	42	60	2	17	42	60	4	29	53	67
80-89	1	19	44	60	1	20	47	66	4	33	57	72
90+	1	16	37	51	2	22	46	61	5	32	53	66
Gender												
Female	1	15	40	58	2	19	44	62	4	30	54	68
Male	1	16	40	58	2	17	41	60	4	28	51	66
Marital Status												
Never married	1	18	41	57	2	22	42	58	6	31	51	66
Married	1	16	41	59	2	19	44	63	4	29	53	68
Widowed	1	10	34	51	1	14	38	57	2	26	50	64
Divorced	1	20	46	63	2	23	48	64	5	36	57	69
Gender and Marital Status												
Female: Never married	1	17	42	59	2	23	47	65	6	34	57	71
Female: Married	2	16	40	58	2	19	44	62	4	29	52	67
Female: Widowed	1	11	35	53	1	14	40	60	2	27	52	66
Female: Divorced	1	22	49	65	2	25	52	67	7	38	60	72
Male: Never married	1	18	39	54	3	18	31	45	5	25	41	57
Male: Married	1	17	42	60	2	18	44	64	4	29	53	69
Male: Widowed	0	7	26	41	1	9	26	44	1	17	39	53
Male: Divorced	1	15	40	58	1	20	42	60	3	32	53	66
Race/Ethnicity												
Non-hispanic white	1	15	40	58	2	17	41	60	4	27	50	65
Non-hispanic black	1	21	51	67	2	25	49	66	6	37	61	72
Hispanic	1	17	42	61	2	19	47	66	4	33	59	73
Asian & Native American	1	10	26	39	1	18	40	55	3	30	48	59
Education												
High school dropout	3	16	39	55	3	18	42	61	4	32	56	69
High school graduate	1	16	43	61	2	19	46	66	4	32	57	72
College graduate	1	14	35	52	1	18	38	54	4	25	45	59
Social Security Benefit Type												
Nonbeneficiary	9	13	18	23	15	20	24	31	14	19	25	33
Beneficiary	1	16	42	60	1	18	43	62	4	30	53	68
Labor Force Experience												
Less than 20 years	4	10	22	33	6	11	24	35	6	18	31	42
20 to 29 years	1	11	33	51	1	12	30	49	2	22	44	59
30 or more year	1	17	44	63	1	20	46	65	4	31	55	70
Shared Lifetime Earnings[b]												
1st Quintile	2	6	21	37	2	7	24	44	2	17	40	54
2nd Quintile	1	16	45	64	1	16	49	68	3	35	61	75
3rd Quintile	1	19	50	68	1	24	53	73	3	38	63	76
4th Quintile	1	19	46	65	1	24	51	67	5	34	58	72
5th Quintile	2	18	39	56	3	20	37	53	5	24	42	57
Total Income[c]												
1st Quintile	4	32	59	72	5	32	60	76	10	53	76	85
2nd Quintile	1	26	65	81	1	31	66	82	5	49	77	86
3rd Quintile	1	12	47	72	1	17	49	73	2	27	62	79
4th Quintile	0	5	21	46	1	9	26	52	1	11	34	59
5th Quintile	0	3	10	19	0	4	12	22	1	7	16	26

Notes:

[a]Replacement rates are calculated as the ratio of income at age 67 to shared lifetime earnings.

Income includes Social Security benefits, pensions, income from assets, earnings, and SSI benefits.

[b]Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are computed by assigning each individual half the total earnings of the couple in the years when the individual is married, and his or her own earnings in years when nonmarried.

[c]Total income includes Social Security benefits, pensions, income from assets, earnings, SSI benefits, imputed rent, and income from nonspouse coresident family members.

Source: Authors tabulations of MINTEX.